

Bettinger 10/065,787

Claim Amendments

[c1] Currently Amended

A compressed seal expansion joint comprising:

at least one generally cylindrical resilient and elastic seal disposed in an annular packing chamber defined between

telescopically arranged outer and inner pipe members, and

an outer circumferentially tensioned band ~~and clamp~~ positioned over said generally cylindrical resilient and elastic seal and selected to produce a compressive force to radially deflect elastically said outer pipe member and thereby compress and deflect said generally cylindrical resilient and elastic seal so that said outer and inner pipe members and said generally cylindrical resilient and elastic seal create and maintain a bearing and friction-loaded sealed relationship for and during fluid flow at varying temperatures between adjacent ends of two conduits during axial sliding and rotational relative movement of said outer and inner pipe members.

[c2] Previously Presented

The compressed seal expansion joint of claim 1 whereby said compressed seal expansion joint possesses more than one generally cylindrical resilient and elastic seal and outer circumferentially tensioned band and clamp.

[c3] Previously Presented

The compressed seal expansion joint of claim 1 whereby said annular packing chamber is further volume constrained and circumscribed for each said generally cylindrical resilient and elastic seal by at least two cylindrical guide rings attached to one of said outer and inner pipe members and extended radially between said outer and inner pipe members and selected to provide a fixed initial volume for each said generally cylindrical resilient and elastic seal.

[c4] Original

The compressed seal expansion joint of claim 3 whereby said compressive force is further selected to produce static compressive frictional forces on the contact surfaces of each said generally cylindrical resilient and elastic seal, said cylindrical guide rings, and said outer and inner pipe members to resist and prevent relative movement due to axial internal pressure, vibration, and transient operational loads.

[c5] Original

The compressed seal expansion joint of claim 1 whereby said outer and inner pipe members are composed of polymer matrix composites.

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[c6] Original

The compressed seal expansion joint of claim 1 whereby said fluid is a cryogenic fluid.

[c7] Original

The compressed seal expansion joint of claim 1 whereby said fluid is a rocket engine fuel reactant.

[c8] Original

The compressed seal expansion joint of claim 1 whereby said outer circumferentially tensioned band and clamp is selected to provide means for manual and power driven adjustment.